International Co-Control Benefits Analysis Program

Promoting Integrated Environmental Strategies to Achieve Environmental and Human Health Benefits and Greenhouse Gas Reduction

The U.S. Environmental Protection Agency initiated the International Co-Control Benefits Analysis Program (ICAP) in 1998 to support and promote the analysis of public health and environmental benefits of integrated strategies for greenhouse gas mitigation and local environmental improvement in developing countries. Through this program, government agencies and research institutions in Argentina, Brazil, China, Chile, Korea, and Mexico are conducting analysis of the local air pollution health benefits and greenhouse gas reductions that could be realized through implementation of integrated environmental strategies. This work focuses on the use of clean energy technologies and includes extensive interaction with domestic and international policy makers. These efforts are building recognition and understanding of the potential for environmental "co-benefits" of integrated air pollution and climate change strategies and are enhancing support for their implementation. The ICAP program is forging working relationships with the World Bank, the GEF, OECD and other international organizations to promote broader application and refinement of this co-benefits analysis and integrated environmental management methodology. On behalf of the U.S. EPA, the National Renewable Energy Laboratory (NREL) with other cooperators and contractors (including Abt Associates) leads the implementation of ICAP and provides financial and technical support to the participating countries.

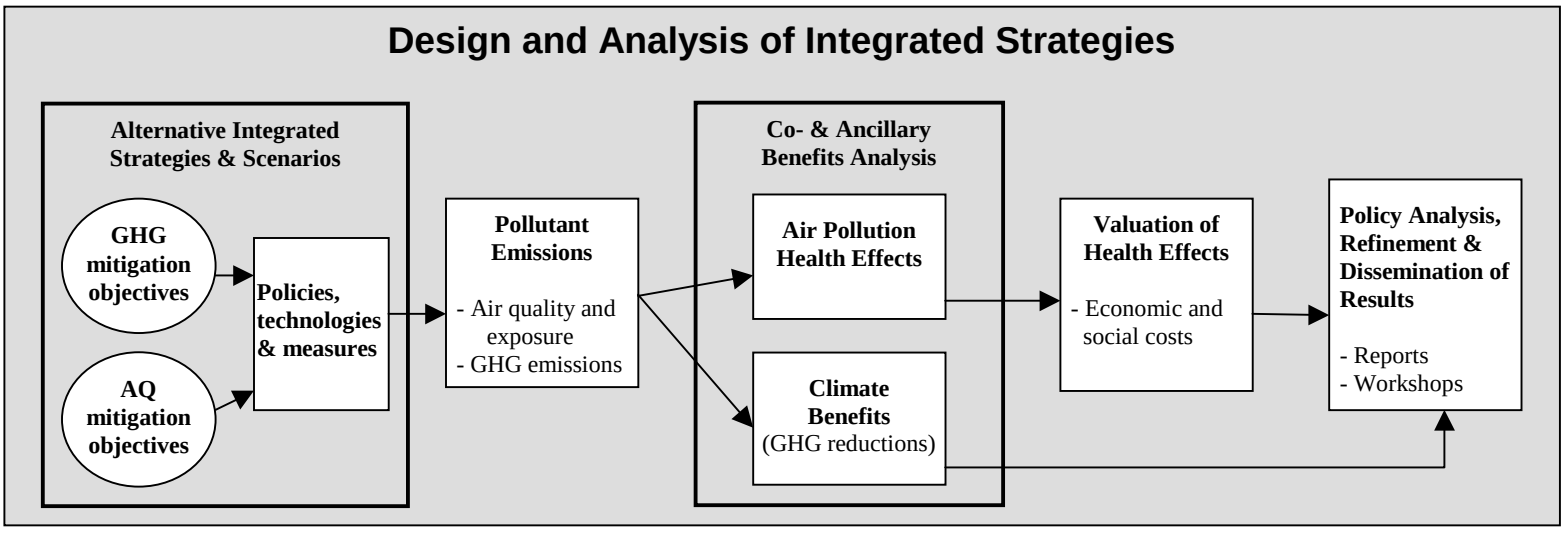
Goals

ICAP is designed to:

- Support and promote analysis and quantification of the environmental, public health, and GHG mitigation benefits of integrated air pollution and greenhouse gas reduction strategies and measures for the energy sector in developing countries,
- Develop, test and refine effective analytical methodologies to guide further collaboration on co-benefits analysis,
- Assist developing country policy makers in the development of integrated strategies for addressing local air pollution and greenhouse gas reduction,
- Build lasting institutional and human capacity for analysis of health, environmental and GHG mitigation impacts of alternative strategies and development of integrated air pollution and climate change policies.

Approach

Each country tailors the work to best meet their needs and priorities and establishes an interdisciplinary team of technical experts guided by policy makers to conduct the assessment. The first phase of collaboration focuses primarily on estimation of the human health benefits resulting from air quality improvements associated with increased use of clean energy technologies. Future activities may also address water and soil pollution, ecological impacts, and non-energy technologies, if appropriate.



Example of Country Approach to Co-control Benefits Analysis

Each participating country has developed country-specific methodologies to estimate health benefits of energy measures that will reduce GHG emissions and improve air quality. Below is a brief outline of the approach adopted for Chile.

Chile's Comision Nacional del Medio Ambiente (CONAMA) organized a scoping meeting to define project goals, to identify and form an interagency analytical team and to prepare a workplan. CONAMA oversees activities of the private university selected as the technical lead for the project and provides a concrete linkage for the project with the National Climate Change Committee of Chile.

The Chile team has conducted an initial assessment of the potential health benefits arising from changes in PM_{10} concentrations resulting from implementation of "no-regrets" GHG mitigation efforts. Measures under consideration include introducing energy efficient technologies and fuel substitution in the industrial, residential, commercial and transport sectors in the greater Santiago area. Domestic health effects studies provide concentration-response functions for air pollutants and are supplemented by appropriately adapted international values to estimate changes for several health effects end-points ranging from premature mortality to hospital and emergency room visits to restricted activity days. Domestic and international willingness-to-pay functions are used to develop estimates for the monetary value of the anticipated health effects. Results are obtained for Santiago and extrapolated to the national level.

Estimates of the total potential for avoided health effects between 2000 and 2020 include thousands of deaths, hundreds of thousands of hospital and emergency room visits, and millions of disability days. Corresponding estimates of the potential benefit value of these avoided health effects are between US$0.3 – 2.4 billion or US$21-480/ton C-eq reduced.

In-Country Lead Agencies

Argentina Universidad Nacional del Sur	**Brazil** CETESB-Environmental Protection Agency for the State of Sao Paulo University of Sao Paulo
Chile Comision Nacional del Medio Ambiente (CONAMA) P. Catholic University of Chile	**China** State Environmental Protection Administration (SEPA) China Council for International Cooperation on Environment and Development (CCICED), Pollution Control Working Group
Korea Korea Environment Institute; Korea Institute of Science and Technology	**Mexico** Instituto Nacional de Ecologia (INE)

Schedule of Key Events and Milestones

November 1999	Workshop held in conjunction with COP-5 where Argentina, Chile, Korea, and Mexico present their methods and preliminary results
March 2000	Parallel meetings at the IPCC workshop on ancillary benefits. Countries present methods, results and opportunities for international collaboration to broaden dissemination ICAP approach
October 2000	Chile, China, Korea complete initial co-benefits analysis and hold in-country workshops to discuss results with policymakers and plan next steps
November 2000	COP6 Workshop and summary report to present results to international community
January 2001	ICAP Workplans completed for Brazil and Mexico and analytical work initiated. Exploratory work initiated to develop workplans for ICAP assessments in South Africa and India
March 2001	Latin American regional workshop on ICAP and co-benefits. Countries present, share and discuss methods, results and opportunities for international collaboration.
June-July 2001	Argentina, Brazil, and Mexico complete initial co-benefits analysis and hold in-country workshops to discuss results with policymakers and plan next steps

For More Information Please Contact:

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